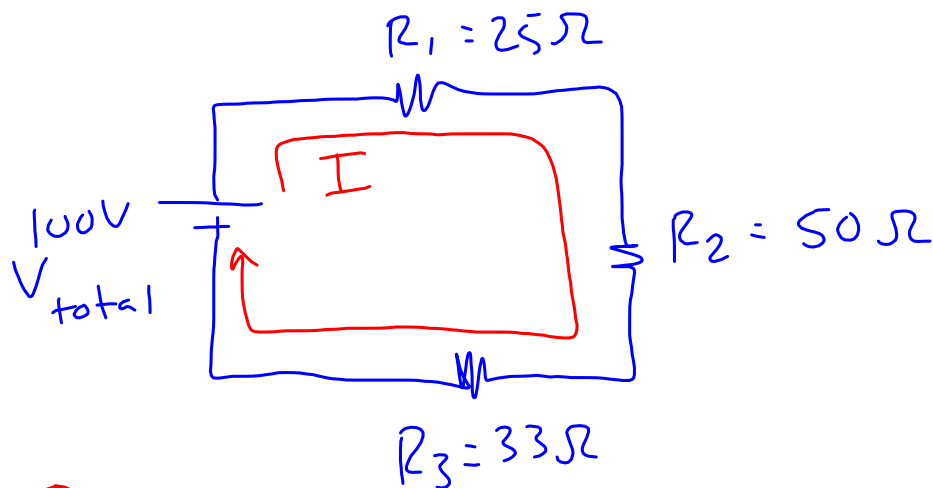


1. Find I , V_1 , V_2 , V_3



①

$$\begin{aligned}
 R_{total} &= R_1 + R_2 + R_3 \\
 &= 25\Omega + 50\Omega + 33\Omega \\
 &= 108\Omega
 \end{aligned}$$

②

$$\begin{aligned}
 I &= \frac{V_{total}}{R_{total}} \\
 &= \frac{100V}{108\Omega} = 0.925A
 \end{aligned}$$

③

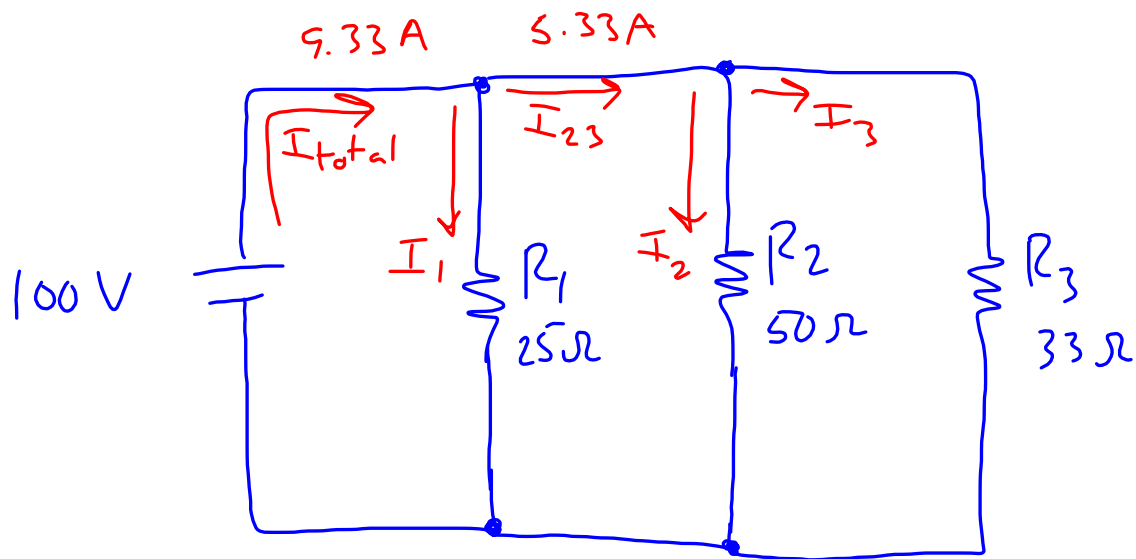
$$V_1 = IR_1 = (0.925A)(25\Omega) = 23.25V$$

$$V_2 = IR_2 = (0.925A)(50\Omega) = 46.25V$$

$$V_3 = IR_3 = (0.925A)(33\Omega) = 30.53V$$

④ 100.03V

2. Find I_{total} , I_1 , I_2 , I_3



$$I_1 = \frac{V_{total}}{R_1} = \frac{100V}{25\Omega} = 4A$$

$$I_2 = \frac{V_{total}}{R_2} = \frac{100V}{50\Omega} = 2A$$

$$I_3 = \frac{V_{total}}{R_3} = \frac{100V}{33\Omega} = 3.33A$$

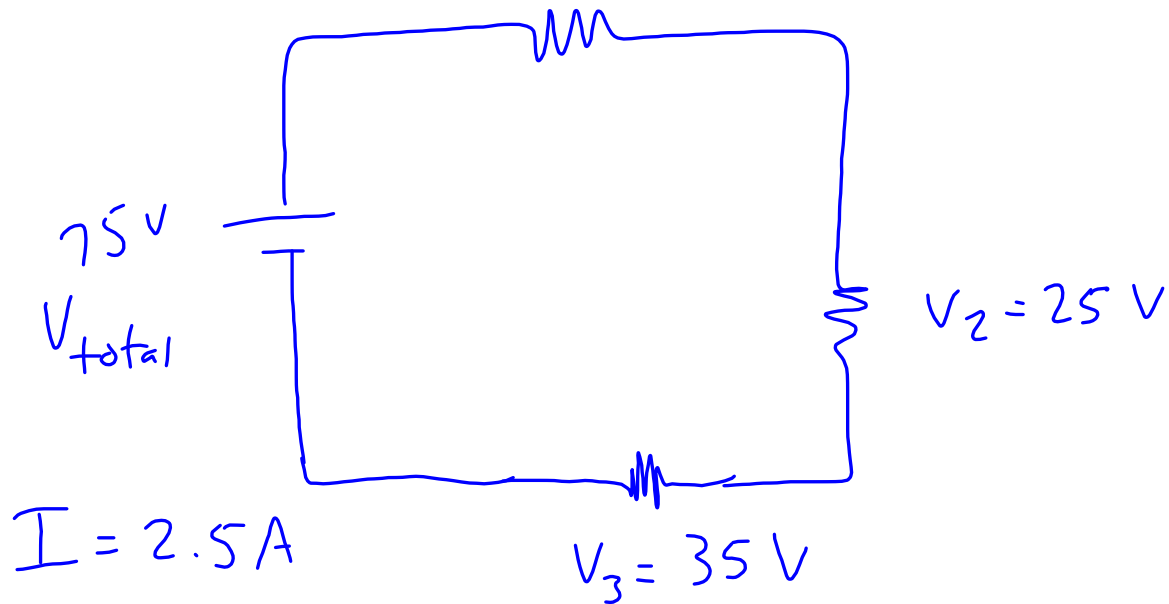
$$I_{total} = I_1 + I_2 + I_3$$

$$= 4A + 2A + 3.33A$$

$$= 9.33A$$

3. Find R_1, R_2, R_3

$$V_1 = 15 \text{ V}$$



$$R_1 = \frac{V_1}{I} = 6\ \Omega$$

$$R_2 = \frac{V_2}{I} = 10\ \Omega$$

$$R_3 = \frac{V_3}{I} = 14\ \Omega$$

$$R_{\text{total}} = 30\ \Omega$$